

## SEQUENCE LISTING

<110> Seibler, Jost  
Schwenk, Frieder  
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Küter-Luks, Birgit

<120> siRNA mediated gene silencing in transgenic animals

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<150> US60/420,476  
<151> 2002-10-22

<150> US60/467,814  
<151> 2003-05-03

<150> US60/485,969  
<151> 2003-07-03

<150> 02023283.1  
<151> 2002-10-17

<160> 220

<170> PatentIn Ver. 2.1

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<212> DNA  
<213> Artificial Sequence

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<223> Description of Artificial Sequence: Rosa26 locus sequence

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 <212> DNA  
 <213> Artificial Sequence

<220>  
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<212> DNA
<213> Artificial Sequence
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 <213> Artificial Sequence

<220>  
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 <211> 4640  
 <212> DNA

### <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Sequence of Rluc-U6-shRNA neo insert

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<211> 15174  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Targeting  
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insert

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<211> 4640
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Rluc tet02
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<210> 11  
 <211> 3387  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: H1 tet5' shRNA vector

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 ttagctccga accttcgtcc ctggccggcc cgggtctccg tcgcccggcc gccgcctatgg 180  
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 gggAACACCC agcgcgcgtg cgccttggca ggaagatggc tttggggac agggggatgg 300  
 cgccttgcac tatttgcatt tcgctatgtt ttctggggaa tcaccataaa cgtgaaattt 360  
 cctatcagtg atagagatta taagttctgtt atagagaccac tctttccctt gattccaaattt 420  
 cagcggggagc cacctgtatc agcttgcattt ggtggcttcc gctgagttgg aatccatttt 480  
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 ttttgggtcc ttttagtgagg gtttaatttgc agcttggcgat aatcatggtc atagctgttt 600  
 cctgtgtgaa attgttatcc gtcacaattt ccacacaaca tacgagccgg aagcataaaag 660  
 tggtaaaagctt ggggtgccttta atgagtggc taactccat taatttgcgtt ggcgtcaactg 720  
 cccgcggccca agtccggggaaat cctgtgtgc cagctgcattt aatgaatcg ccaacgcgc 780  
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 gacttatcgc cactggcagc agccacttgtt aacaggatta gcagagcggag gtatgttaggc 1380  
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<210> 12

<211> 3387

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: H1 tet3' shRNA vector

<400> 12

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<210> 13
<211> 3387
<212> DNA
<213> Artificial Sequence
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<220>  
<223> Description of Artificial Sequence: H1 tet5' + 3'  
shRNA vector

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<210> 14
<211> 7209
<212> DNA
<213> Artificial Sequence
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<220>  
<223> Description of Artificial Sequence:  
Fluc-GAGGS-tetR-hygro insert

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 cggttaagcgg cagggcggaa acaggagagc gcacgaggga gcttccaggg gaaacgcct 5340  
 ggttatctta tagtctgtc gggttcgcc acctctgact tgagcgtcga ttttgtat 5400  
 gctcgtcagg gggccggagc ctatggaaaa acgcgc当地 cgcggccctt ttacggttcc 5460  
 tggccttttctt gctcacatgt tcttcctgc gttatccccctt gattctgtgg 5520  
 ataaccgtat taccgc当地 tggatgactg ataccgc当地 ccgc当地 acgaccgagc 5580  
 gcagcgc当地 agtgc当地 gaagcggaa agcgc当地 acgcaaaaccg cctctccccg 5640  
 cgc当地 gattcattaa tgca gcttgc当地 acgacagggtt tcccgactgg aaagcgggca 5700  
 gtgagcgc当地 cgcaattaat gtgagttagc tcaactcattaa ggcacccag gcttacact 5760  
 ttatgcttcc ggctcgtatg ttgtgtgaa ttgtgagcgg ataacaattt cacacaggaa 5820  
 acagctatga ccatgattac gccaagctag cccggctag ctgc当地 tgca ggtt 5878

&lt;210&gt; 19

&lt;211&gt; 47

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the CDH-1 gene

&lt;400&gt; 19

tgagaagtct cccagtc当地 tcaagagact gactgggaga cttctca

47

&lt;210&gt; 20

&lt;211&gt; 47

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the p53 gene

&lt;400&gt; 20

gactccagtg gtaatctact tcaagagact agattaccac tggagtc

47

&lt;210&gt; 21

&lt;211&gt; 47

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the CDC20 gene

&lt;400&gt; 21

cgccaggact cccggccgat tcaagagatc ggccggaggt cctgccg

47

&lt;210&gt; 22

<211> 47  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence: DNA encoding  
 an shRNA directed against the CYLD gene  
  
 <400> 22 47  
 cctcatgcag ttctctttgt tcaagagaca aagagaactg catgagg

<210> 23  
 <211> 50  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence: DNA encoding  
 an shRNA directed against the RAS-GAP gene  
  
 <400> 23 50  
 aagatgaagc cactccatat ttcaagagaa aatagggagt ggcttcatct

<210> 24  
 <211> 41  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence: DNA encoding  
 an shRNA directed against the tubulin gene  
  
 <400> 24 41  
 gacagagcca agtggactca cagagtccac ttggctctgt c

<210> 25  
 <211> 42  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence: DNA encoding  
 an shRNA directed against the lamin gene  
  
 <400> 25 42  
 ctggacttcc agaagaacat tcgtgttctt ctggaagtcc ag

<210> 26  
 <211> 47  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence: DNA encoding  
 an shRNA directed against the gene for the  
 ubiquitin carboxyl-terminal hydrolase 12  
  
 <400> 26 47  
 gagattggtc cagaacagt tcaagagaac tgttctggac caatctc

<210> 27  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the gene for the  
ubiquitin carboxyl-terminal hydrolase 12

<400> 27  
ccccctccga tcatggtagt tcaagagact accatgatcg gaaggc 47

<210> 28  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the gene for the  
ubiquitin carboxyl-terminal hydrolase 12

<400> 28  
tctttagaat tcttaagtat tcaagagata cttaagaatt ctaaaga 47

<210> 29  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the gene of the  
ubiquitin carboxyl-terminal hydrolase

<400> 29  
cattagctat atcaacatgt tcaagagaca tggatata gctaatt 47

<210> 30  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the gene for the  
ubiquitin carboxyl-terminal hydrolase11

<400> 30  
accacaaaacg gcgaaacgat tcaagagatc gttccgcccgt ttgtgg 47

<210> 31  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the gene for the  
ubiquitin carboxyl-terminal hydrolase 11

<400> 31  
gagggtcttg gaggtttct tcaagagaga agacctccaa gaccctc

47

<210> 32  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the gene for the  
ubiquitin carboxyl-terminal hydrolase 11

<400> 32  
gtccatgccc agccgtacat tcaagagatg tacggctggg catggac

47

<210> 33  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the gene for the  
ubiquitin carboxyl-terminal hydrolase 11

<400> 33  
gctggacacc ctcgtggagt tcaagagact ccacgagggt gtccagc

47

<210> 34  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the gene for the  
ubiquitin carboxyl-terminal hydrolase 10

<400> 34  
gaatatcaga gaattgagtt tcaagagaac tcaattctct gatattc

47

<210> 35  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the gene for the  
ubiquitin carboxyl-terminal hydrolase 10

<400> 35  
tggacttcat gaggaaatgt tcaagagaca ttccctcatg aagtcca

47

<210> 36  
<211> 47  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the gene for the  
ubiquitin carboxyl-terminal hydrolase 10

<400> 36  
tattgaatat cctgtggact tcaagagagt ccacaggata ttcaata

47

<210> 37  
<211> 47  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the gene for the  
ubiquitin carboxyl-terminal hydrolase 10

<400> 37  
ttgtactgag agaaaactgct tcaagagagc agtttctctc agtacaa

47

<210> 38  
<211> 47  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the HAUSP gene

<400> 38  
gatcaatgat aggtttaaat tcaagagatt caaacctatac attgatc

47

<210> 39  
<211> 47  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the HAUSP gene

<400> 39  
ggagttttag aagtttaaat tcaagagatt taaaacttctc aaactcc

47

<210> 40  
<211> 47  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> Description of Artificial Sequence: DNA encoding

an shRNA directed against the HAUSP gene

<400> 40  
gaactcctcg cttgctgagt tcaagagact cagcaagcga ggagttc

47

<210> 41  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the HAUSP gene

<400> 41  
ccgaatttaa cagagagaat tcaagagatt ctctctgtta aattcgg

47

<210> 42  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the gene for the  
ubiquitin carboxyl-terminal hydrolase 8

<400> 42  
gacagcagaa gaatgcagat tcaagagatc tgcatcttc tgctgtc

47

<210> 43  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the gene for the  
ubiquitin carboxyl-terminal hydrolase 8

<400> 43  
ataaagctca acgagaacct tcaagagagg ttctcggttga gctttat

47

<210> 44  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the gene for the  
ubiquitin carboxyl-terminal hydrolase 8

<400> 44  
ggtgaagtgg cagaagaatt tcaagagaat tcttctgccat cttcacc

47

<210> 45  
<211> 47

<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the gene for the  
ubiquitin carboxyl-terminal hydrolase 8

<400> 45  
gtattgcagt aatcatcaact tcaagagagt gatgattact gcaatac

47

<210> 46  
<211> 47  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the FLJ10785 gene

<400> 46  
gatatgggtt tccatgtcat tcaagagatg acatggaaacc ccatatc

47

<210> 47  
<211> 47  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the FLJ10785 gene  
  
<400> 47  
ggagacatgg ttcttagtgt tcaagagaca ctaagaacca tgtctcc

47

<210> 48  
<211> 47  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the FLJ10785 gene  
  
<400> 48  
agcaccaagt tcgtctcagt tcaagagact gagacgaact tggtgct

47

<210> 49  
<211> 47  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the FLJ10785 gene  
  
<400> 49  
gatgcaacac tgaaagaact tcaagagagt tctttcagtg ttgcac

47

<210> 50  
<211> 47  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the KIAA0710 gene

<400> 50  
gtcaatggca gtgatgatat tcaagagata tcatactgc cattgac

47

<210> 51  
<211> 47  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the KIAA0710 gene

<400> 51  
cctgcttagct gcctgtggct tcaagagagc cacaggcagc tagcagg

47

<210> 52  
<211> 47  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the KIAA0710 gene

<400> 52  
ccacctttgc cagaaggagt tcaagagact cttctggca aaggtgg

47

<210> 53  
<211> 47  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the KIAA0710 gene

<400> 53  
ccctattttag gcaagtgtct tcaagagaga cacttgccctc aatagg

47

<210> 54  
<211> 47  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the genes  
FLJ12552/FLJ14256

<400> 54  
gaaggaaaac ttgctgacgt tcaagagacg tcagcaagtt ttccttc

47

<210> 55  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the FLJ12552/FLJ14256  
genes

<400> 55  
ctcacctggg tccatgagat tcaagagatc tcattggaccc aggtgag

47

<210> 56  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the FLJ12552/FLJ14256  
genes

<400> 56  
gctgtcttac cgtgtggct tcaagagaga ccacacggta agacagc

47

<210> 57  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the FLJ12552/FLJ14256  
genes

<400> 57  
cctggaccgc atgtatgact tcaagagagt catacatgcg gtccagg

47

<210> 58  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the KIAA1203 gene

<400> 58  
gtcaatggca gtgatgatat tcaagagata tcattcactgc cattgac

47

<210> 59  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the KIAA1203 gene

<400> 59  
cctgctagct gcctgtggct tcaagagagc cacaggcagc tagcagg

47

<210> 60  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the KIAA1203 gene

<400> 60  
ccacctttgc cagaaggagt tcaagagact ccttctggca aaggtgg

47

<210> 61  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the KIAA1203 gene

<400> 61  
ccctattgag gcaagtgtct tcaagagaga cacttgccctc aataggg

47

<210> 62  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the FLJ23277 gene

<400> 62  
ggaaatccga attgcttgt tcaagagacc aagcaattcg gatttcc

47

<210> 63  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the FLJ23277 gene

<400> 63  
cacatttctt caagtgtgg tcaagagacc acacttgaag aaatgtg

47

<210> 64  
<211> 47

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<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: DNA encoding
      an shRNA directed against the FLJ23277 gene

<400> 64
      cagcaggatg ctcaagaatt tcaagagaat tcttgagcat cctgctg          47

<210> 65
<211> 47
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: DNA encoding
      an shRNA directed against the FLJ23277 gene

<400> 65
      gctgaataacc tacattggct tcaagagagc caatgttaggt attcagc          47

<210> 66
<211> 47
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: DNA encoding
      an shRNA directed against the FLJ14914 (similar to
      UBP4) gene

<400> 66
      gggcttgc ctggccttgt tcaagagaca aggccaggca caagccc          47

<210> 67
<211> 47
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: DNA encoding
      an shRNA directed against the FLJ14914 (similar to
      UBP4) gene

<400> 67
      gccttgcct gccaagaagt tcaagagact tcttggcagg acaaggc          47

<210> 68
<211> 47
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: DNA encoding
      an shRNA directed against the FLJ14914 (similar to
      UBP4) gene

<400> 68

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gattgaagcc aaggaaacgt tcaagagacg ttcccttggc ttcaatc

47

<210> 69  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the FLJ14914 (similar to  
UBP4) gene

<400> 69  
tggcgccctgc tccccatctt tcaagagaag atggggagca ggcgccca

47

<210> 70  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the gene for the  
ubiquitin carboxyl-terminal hydrolase isozyme L5

<400> 70  
gaaccagcag gctctgtggc tcaagagacc acagagcctg ctggttc

47

<210> 71  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the gene for the  
ubiquitin carboxyl-terminal hydrolase isozyme L5

<400> 71  
ggaaggataa ttatctgcct tcaagagagg cagataatta tgcttcc

47

<210> 72  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the gene for the  
ubiquitin carboxyl-terminal hydrolase isozyme L5

<400> 72  
agaagaagat gcttttcact tcaagagagt gaaaagcatc ttcttct

47

<210> 73  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the gene for the  
ubiquitin carboxyl-terminal hydrolase isozyme L5

<400> 73  
cttgcagagg aggaacccat tcaagagatg ggttcctcct ctgcaag

47

<210> 74  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the gene for the  
ubiquitin carboxyl-terminal hydrolase isozyme L3

<400> 74  
gcaaacaatc agcaatgcct tcaagagagg cattgctgat tgtttgc

47

<210> 75  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the gene for the  
ubiquitin carboxyl-terminal hydrolase isozyme L3

<400> 75  
ttggactgat tcatgctatt tcaagagaat agcatgaatc agtccaa

47

<210> 76  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the gene for the  
ubiquitin carboxyl-terminal hydrolase isozyme L3

<400> 76  
ctggcaattc gttgatgtat tcaagagata catcaacgaa ttgccag

47

<210> 77  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the gene for the  
ubiquitin carboxyl-terminal hydrolase isozyme L3

<400> 77

ttagatggc ggaagccatt tcaagagaat ggcttccgcc catctaa

47

<210> 78

<211> 47

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the gene for the  
ubiquitin carboxyl-terminal hydrolase isozyme L1

<400> 78

gaggagtctc tgggctcggt tcaagagacc gagcccagag actcctc

47

<210> 79

<211> 47

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the gene for the  
ubiquitin carboxyl-terminal hydrolase isozyme L1

<400> 79

gagctgaagg gacaagaagt tcaagagact tcttgtccct tcagctc

47

<210> 80

<211> 47

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the gene for the  
ubiquitin carboxyl-terminal hydrolase isozyme L1

<400> 80

tgtcggttag atgacaagg tcaagagacc ttgtcatcta cccgaca

47

<210> 81

<211> 47

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the gene for the  
ubiquitin carboxyl-terminal hydrolase isozyme L1

<400> 81

cacagctgtt cttctgttct tcaagagaga acagaagaac agctgtg

47

<210> 82

<211> 47

<212> DNA

<213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: DNA encoding  
 an shRNA directed against the KIAA1891/FLJ25263  
 genes

<400> 82  
 gtggaaggcct ttacagatct tcaagagaga tctgtaaagg cttccac

47

<210> 83  
 <211> 47  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: DNA encoding  
 an shRNA directed against the KIAA1891/FLJ25236  
 genes

<400> 83  
 caacagctgc cttcatstgt tcaagagaca gatgaaggca gctgttg

47

<210> 84  
 <211> 47  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: DNA encoding  
 an shRNA directed against the KIAA1891/FLJ25263  
 genes

<400> 84  
 ccataggcag tcctcctaatt tcaagagatt aggaggactg cctatgg

47

<210> 85  
 <211> 47  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: DNA encoding  
 an shRNA directed against the KIAA1891/FLJ25263  
 genes

<400> 85  
 tgtatcactg ccactggttt tcaagagaaa ccagtggcag tgataca

47

<210> 86  
 <211> 47  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: DNA encoding  
 an shRNA directed against the FLJ14528 (similar to  
 UBP8) gene

<400> 86

catgttgggc agctgcagct tcaagagagc tgtagctgcc caacatg

47

<210> 87  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the FLJ14528 (similar to  
UBP8) gene

<400> 87  
cacaactgga gacctgaagt tcaagagact tcaggctcc agttgtg

47

<210> 88  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the FLJ14528 (similar to  
UBP8) gene

<400> 88  
gtatgcctcc aagaaagagt tcaagagact ctttcttggaa ggcatac

47

<210> 89  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the FLJ14528 (similar to  
UBP8) gene

<400> 89  
tttcacagta catttcttt tcaagagaag agaaatgtac tgtgaag

47

<210> 90  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the gene for the U4/U6  
TRI snRNP 65 kDa protein

<400> 90  
gtactttcaa ggccgggtt tcaagagaac cccggccttg aaagtac

47

<210> 91  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: DNA encoding  
 an shRNA directed against the gene for the U4/U6  
 TRI snRNP 65 kDa protein

<400> 91  
 cttggacaag caagccaaat tcaagagatt tggcttgctt gtccaag

47

<210> 92  
 <211> 47  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: DNA encoding  
 an shRNA directed against the gene for the U4/U6  
 TRI snRNP 65 kDa protein

<400> 92  
 gactattgtg actgatgttt tcaagagaaa catcagtcac aatagtc

47

<210> 93  
 <211> 47  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: DNA encoding  
 an shRNA directed against the gene for the U4/U6  
 TRI snRNP 65kDa protein

<400> 93  
 ggagaacttt ctgaagcgct tcaagagagc gtttcagaaa gttctcc

47

<210> 94  
 <211> 47  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: DNA encoding  
 an shRNA for the XM\_089437 gene

<400> 94  
 gacgagagaa accttcacct tcaagagagg tgaaggtttc tctcgac

47

<210> 95  
 <211> 47  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: DNA encoding  
 an shRNA directed against the XM\_089437 gene

<400> 95  
 acattattctt acatttttt tcaagagaaa agaatgtaga ataatgt

47

<210> 96  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the XM\_089437 gene

<400> 96  
agattcgc aa atggatgtat tcaagagata catccattt g cgaatct 47

<210> 97  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the XM\_089437 gene

<400> 97  
cattccccacc atgagtctgt tcaagagaca gactcatggt ggaaatg 47

<210> 98  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the KIAA1453 gene

<400> 98  
gatcgcccga cacttccgct tcaagagagc ggaagtgtcg ggcgatc 47

<210> 99  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the KIAA1453 gene

<400> 99  
ccagcaggcc tacgtgctgt tcaagagaca gcacgttaggc ctgctgg 47

<210> 100  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the KIAA1453 gene

<400> 100

gccagctcct ccacagca tcaagagagt gctgtggagg agctggc

47

<210> 101  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the KIAA1453 gene

<400> 101  
cgccgccaag tggagcagat tcaagagatc tgctccactt ggccggcg

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<210> 102  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the FLJ12697 gene

<400> 102  
gaagatgccc atgaattcct tcaagagagg aattcatggg catcttc

47

<210> 103  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the FLJ12697 gene

<400> 103  
caaacaggct gcgccaggct tcaagagagc ctggcgcagc ctgtttg

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<210> 104  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the FLJ12697 gene

<400> 104  
acggcctagc gcctgatgg tcaagagacc atcaggcgct aggccgt

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<210> 105  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the FLJ12697 gene

<400> 105  
ctgtaacctc tctgatcggt tcaagagacc gatcagagag gttacag

47

<210> 106  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the gene for the  
ubiquitin specific protease (USP18)

<400> 106  
tctgtcagtc catcctggct tcaagagagc caggatggac tgacaga

47

<210> 107  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the gene for the  
ubiquitin specific protease (USP18)

<400> 107  
tgaagcgaga gtcttgtat tcaagagatc acaagactct cgcttca

47

<210> 108  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the gene for the  
ubiquitin specific protease (USP18)

<400> 108  
gatggagtgc taatggaaat tcaagagatt tccatttagca ctccatc

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<210> 109  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the gene for the  
ubiquitin specific protease (USP18)

<400> 109  
ccttcagaga ttgacacgct tcaagagagc gtgtcaatct ctgaagg

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<210> 110  
<211> 47

<212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence: DNA encoding  
 an shRNA directed against the gene for the  
 ubiquitin carboxyl-terminal hydrolase 20

<400> 110  
 cctgaccacg ttccgactgt tcaagagaca gtcggAACgt ggtcagg

47

<210> 111  
 <211> 47  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence: DNA encoding  
 an shRNA directed against the gene for the  
 ubiquitin carboxyl-terminal hydrolase 20

<400> 111  
 gagttcccttc gctgcctgat tcaagagatc aggtagcgaa ggaactc

47

<210> 112  
 <211> 47  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence: DNA encoding  
 an shRNA directed against the gene for the  
 ubiquitin carboxyl-terminal hydrolase 20

<400> 112  
 gactgccttg ctgccttctt tcaagagaag aaggcagcaa ggcagtc

47

<210> 113  
 <211> 47  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence: DNA encoding  
 an shRNA directed against the gene for the  
 ubiquitin carboxyl-terminal hydrolase 20

<400> 113  
 cggcgaggc tacgtactct tcaagagaga gtacgtagcc ctcggcg

47

<210> 114  
 <211> 47  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence: DNA encoding  
 an shRNA directed against the gene for the  
 ubiquitin carboxyl-terminal hydrolase 24

<400> 114  
ggcgagaaga aaggactgtt tcaagagaac agtcctttct tctcgcc

47

<210> 115  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the gene for the  
ubiquitin carboxyl terminal hydrolase 24

<400> 115  
ggacgagaat tgataaaagat tcaagagatc tttatcaatt ctcgtcc

47

<210> 116  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the gene for the  
ubiquitin carboxyl-terminal hydrolase 24

<400> 116  
gcacgagaat ttgggaatct tcaagagaga ttcccaaatt ctcgtgc

47

<210> 117  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the gene for the  
ubiquitin carboxyl-terminal hydrolase 24

<400> 117  
ctacttcatg aaatattggc tcaagagacc aatatttcat gaagtag

47

<210> 118  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the KIAA1594 gene

<400> 118  
gataacagct tcttgtctat tcaagagata gacaagaagc tgttatc

47

<210> 119  
<211> 47  
<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the KIAA1594 gene

<400> 119

gagaatagga catcagggt tcaagagagc cctgatgtcc tattctc

47

<210> 120

<211> 47

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the KIAA1594 gene

<400> 120

cttggaaagac tgaacctgtt tcaagagaac aggttcagtc ttccaag

47

<210> 121

<211> 47

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the KIAA1594 gene

<400> 121

caactccttt gtggatgcat tcaagagatg catccacaaa ggagttg

47

<210> 122

<211> 47

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the KIAA1350 gene

<400> 122

gatgttgtct ccaaattgcat tcaagagatg catttggaga caacatc

47

<210> 123

<211> 47

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the KIAA1350 gene

<400> 123

cgtggggact gtacccct tcaagagagg gaggtacagt cccccacg

47

<210> 124

<211> 47  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the KIAA1350 gene

<400> 124  
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47

<210> 125  
<211> 47  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the gene for the  
ubiquitin carboxyl-terminal hydrolase 25

<400> 125  
gatgatcttc agagagcaat tcaagagatt gctctctgaa gatcatc

47

<210> 126  
<211> 47  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the gene for the  
ubiquitin carboxyl-terminal hydrolase 25

<400> 126  
ggaacatcg g aatttgcctt tcaagagaag gcaaattccg atgttcc

47

<210> 127  
<211> 47  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the gene for the  
ubiquitin carboxyl-terminal hydrolase 25

<400> 127  
gagctagtga gggactcttt tcaagagaaa gagtccctca ctagctc

47

<210> 128  
<211> 47  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the gene for the  
ubiquitin carboxyl-terminal hydrolase 25

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<400> 128
gcagggttct ttaaggcaat tcaagagatt gccttaaga accctgc 47

<210> 129
<211> 47
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: DNA encoding
      an shRNA directed against the gene for the
      ubiquitin carboxyl-terminal hydrolase 16

<400> 129
tcgatgattc ctctgaaaact tcaagagagt ttcatggaa tcatcg 47

<210> 130
<211> 47
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: DNA encoding
      an shRNA directed against the gene for the
      ubiquitin carboxyl-terminal hydrolase 16

<400> 130
gataatggaa atattgaact tcaagagagt tcaatatttc cattatc 47

<210> 131
<211> 47
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: DNA encoding
      an shRNA directed against the gene for the
      ubiquitin carboxyl-terminal hydrolase 16

<400> 131
gttcttcatt taaatgatat tcaagagata tcattttaaat gaagaac 47

<210> 132
<211> 47
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: DNA encoding
      an shRNA directed against the gene for the
      ubiquitin carboxyl-terminal hydrolase 16

<400> 132
gttaacaaac acataaaagt tcaagagaac tttatgttt tgtaac 47

<210> 133
<211> 47

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<212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: DNA encoding  
 an shRNA directed against the USP9X gene

<400> 133  
 gtttagagaag attcttcgtt tcaagagaac gaagaatctt ctctaac

47

<210> 134  
 <211> 47  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: DNA encoding  
 an shRNA directed against the USP9X gene

<400> 134  
 gttgatttga caatcaaact tcaagagagt ttaattgtcc aatcaac

47

<210> 135  
 <211> 47  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: DNA encoding  
 an shRNA directed against the USP9X gene

<400> 135  
 gtttgataacc gtaaaggcgt tcaagagagc gctttacggt atcaacc

47

<210> 136  
 <211> 47  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: DNA encoding  
 an shRNA directed against the USP9X gene

<400> 136  
 gcaatgaaac gtccaatggt tcaagagacc attggacggt tcattgc

47

<210> 137  
 <211> 47  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: DNA encoding  
 an shRNA directed against the USP9Y gene

<400> 137  
 agcttagagaa aattcttcgt tcaagagacg aagaattttc tctagct

47

<210> 138  
<211> 47  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the USP9Y gene

<400> 138  
gatcctataat gatggatgtat tcaagagatc atccatcata taggatc

47

<210> 139  
<211> 47  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the USP9Y gene

<400> 139  
gttcttcttg tcagtgaaat tcaagagatt tcactgacaa gaagaac

47

<210> 140  
<211> 47  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the USP9Y gene

<400> 140  
cttgagcttg agtgaccact tcaagagagt ggtcactcaa gctcaag

47

<210> 141  
<211> 47  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the gene for the  
ubiquitin carboxyl-terminal hydrolase 5

<400> 141  
gaccggccag cgagtctact tcaagagagt agactcgctg gccggtc

47

<210> 142  
<211> 47  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the gene for the  
ubiquitin carboxyl-terminal hydrolase 5

<400> 142  
ggacctgggc tacatctact tcaagagagt agatgttagcc caggccc

47

<210> 143  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the gene for the  
ubiquitin carboxyl-terminal hydrolase 5

<400> 143  
ctctgtggtc caggtgctct tcaagagaga gcacacctggac cacagag

47

<210> 144  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the gene for the  
ubiquitin carboxyl-terminal hydrolase 5

<400> 144  
gaccacacga tttgcctcat tcaagagatg aggcaaatcg tgtggtc

47

<210> 145  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the gene for the  
ubiquitin carboxyl-terminal hydrolase 26

<400> 145  
tggcttggtt attgaaggat tcaagagatc cttcaataaa caagcca

47

<210> 146  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the gene for the  
ubiquitin carboxyl-terminal hydrolase 26

<400> 146  
gtgaatttgg ggaagataat tcaagagatc atttccccca aattcac

47

<210> 147  
<211> 47  
<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the gene for the  
ubiquitin carboxyl-terminal hydrolase 26

<400> 147

cgctatagtc tgaatgagtt tcaagagaac tcattcaagc tatagcg

47

<210> 148

<211> 47

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the gene for the  
ubiquitin carboxyl-terminal hydrolase 26

<400> 148

gatatacctgg ctccacacat tcaagagatg tgtggagcca ggatatc

47

<210> 149

<211> 47

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the KIAA1097 gene

<400> 149

gagccagtgc gatgttagatt tcaagagaat ctacatccga ctggctc

47

<210> 150

<211> 47

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the KIAA1097 gene

<400> 150

gtaaattctg aaggcgaatt tcaagagaat tcgccttcag aatttac

47

<210> 151

<211> 47

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the KIAA1097 gene

<400> 151

gccctcctaa atcaggcaat tcaagagatt gcctgattta ggagggc

47

<210> 152  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the KIAA1097 gene

<400> 152  
gttgagaaat ggagtgaagt tcaagagact tcactccatt tctcaac 47

<210> 153  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the gene for the  
ubiquitin specific protease (USP22) gene

<400> 153  
gcttggaaaa tgcaaggcgt tcaagagacg ccttgcattt tccaagc 47

<210> 154  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the gene for the  
ubiquitin specific protease (USP22) gene

<400> 154  
ctgcatcata gaccagatct tcaagagaga tctggtctat gatgcag 47

<210> 155  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the gene for the  
ubiquitin specific protease (USP22) gene

<400> 155  
gatcaccacg tatgtgtcct tcaagagagg acacatacgt ggtgatc 47

<210> 156  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: DNA encoding

an shRNA directed against the gene for the  
ubiquitin specific protease 22 (USP22) gene

<400> 156  
tgacaacaag tattccctgt tcaagagaca ggaaatactt gttgtca

47

<210> 157  
<211> 47  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the gene for the  
ubiquitin specific processing protease 29

<400> 157  
gaaatataag acagattcct tcaagagagg aatctgtctt atatttc

47

<210> 158  
<211> 47  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the gene for the  
ubiquitin specific processing protease 29

<400> 158  
cccatcaagt ttagaggatt tcaagagaat cctctaaact tgatggg

47

<210> 159  
<211> 47  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the gene for the  
ubiquitin specific processing protease 29

<400> 159  
ggtgtcccat gggatatata tcaagagata tattcccatg ggacacc

47

<210> 160  
<211> 47  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the gene for the  
ubiquitin specific processing protease 29

<400> 160  
gaatgccgac ctacaaagat tcaagagatc tttgttaggtc ggcattc

47

<210> 161  
<211> 47  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the CYLD gene

<400> 161  
cagttataatt ctgtgatgtt tcaagagaac atcacagaat ataactg

47

<210> 162  
<211> 47  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the CYLD gene

<400> 162  
gagggttgtgg ggacaaagggt tcaagagacc tttgtcccca acacctc

47

<210> 163  
<211> 47  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the CYLD gene

<400> 163  
gtgggctcat tggctgaagt tcaagagact tcagccaatg agcccac

47

<210> 164  
<211> 47  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the CYLD gene

<400> 164  
gagctactga ggacagaaaat tcaagagatt tctgtcctca gtagctc

47

<210> 165  
<211> 47  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the gene for the  
ubiquitin carboxyl-terminal hydrolase 2

<400> 165

tcagcaggat gctcaggagt tcaagagact cctgagcatc ctgctga

47

<210> 166  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the gene for the  
ubiquitin carboxyl-terminal hydrolase 2

<400> 166  
gaagttctcc atccagaggt tcaagagacc tctggatgga gaacttc

47

<210> 167  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the gene for the  
ubiquitin carboxyl-terminal hydrolase 2

<400> 167  
gccggtcccc accagcagct tcaagagagc tgctggtggg gaccggc

47

<210> 168  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the gene for the  
ubiquitin carboxyl-terminal hydrolase 2

<400> 168  
cactcgggag ttgagagatt tcaagagaat ctctcaactc ccgagtg

47

<210> 169  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the gene for the  
ubiquitin specific protease 3 (USP3)

<400> 169  
gcccttggt ctgttgact tcaagagagt caaacagacc caaggc

47

<210> 170  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: DNA encoding  
 an shRNA directed against the gene for the  
 ubiquitin specific protease 3 (USP3)

<400> 170  
 ctcaacacta aacagcaagt tcaagagact tgctgttag tgttgag

47

<210> 171  
 <211> 47  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: DNA encoding  
 an shRNA directed against the gene for the  
 ubiquitin specific protease 3 (USP3)

<400> 171  
 gatttcattg gacagcatat tcaagagata tgctgtccaa tgaaatc

47

<210> 172  
 <211> 47  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: DNA encoding  
 an shRNA directed against the gene for the  
 ubiquitin specific protease 3 (USP3)

<400> 172  
 catggggcac caactaattt tcaagagaaa ttagttggtg ccccatg

47

<210> 173  
 <211> 47  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: DNA encoding  
 an shRNA directed against the gene for the  
 ubiquitin carboxyl-terminal hydrolase 23

<400> 173  
 ggtgtctctg cgggattgtt tcaagagaac aatcccgac agacacc

47

<210> 174  
 <211> 47  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: DNA encoding  
 an shRNA directed against the gene for the  
 ubiquitin carboxyl-terminal hydrolase 23

<400> 174

agttcagtag gtgttagactt tcaagagaag tctacaccta ctgaact

47

<210> 175  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the gene for the  
ubiquitin carboxyl-terminal hydrolase 23

<400> 175  
gagttccctga agctccat tcaagagatg aggagttca ggaactc

47

<210> 176  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the gene for the  
ubiquitin carboxyl-terminal hydrolase 23

<400> 176  
ggatttgctg gggcaaggt tcaagagacc ttgccccag caaatcc

47

<210> 177  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the UBP-32.7 gene

<400> 177  
ctcagaaagc caacattcat tcaagagatg aatgttggct ttctgag

47

<210> 178  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the UBP-32.7 gene

<400> 178  
cgcatgttaa taagaagggtt tcaagagaac cttcttatta caatgcg

47

<210> 179  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the UBP-32.7 gene

<400> 179  
gggagaaaaatt tcaagagaat ttctgcattt tcctccc

47

<210> 180  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the UBP-32.7 gene

<400> 180  
ttacaaattt aggaaatact tcaagagagt atttcctaaa tttgtaa

47

<210> 181  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the gene for the Homo  
sapiens ubiquitin specific protease 13  
(isopeptidase T-3)

<400> 181  
gttatgaatt gatatgcagt tcaagagact gcatatcaat tcataac

47

<210> 182  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the gene for the Homo  
sapiens ubiquitin specific protease 13  
(isopeptidase T-3)

<400> 182  
gtgataaacac aactaatggc tcaagagacc attagttgtg ttatcac

47

<210> 183  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the gene for the Homo  
sapiens ubiquitin specific protease 13  
(isopeptidase T-3)

<400> 183  
gttagaggaga gttctgaaat tcaagagatt tcagaactct cctctac

47

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<210> 184
<211> 47
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: DNA encoding
      an shRNA directed against the gene for the Homo
      sapiens ubiquitin specific protease 13
      (isopeptidase T-3)

<400> 184
      gcctctaatac ctgataaggt tcaagagacc ttatcaggat tagaggc          47

<210> 185
<211> 47
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: DNA encoding
      an shRNA directed against the gene for the
      ubiquitin carboxyl-terminal hydrolase 28

<400> 185
      gatgatcttc aggctgccat tcaagagatg gcagcctgaa gatcatc          47

<210> 186
<211> 47
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: DNA encoding
      an shRNA directed against the gene for the
      ubiquitin carboxyl-terminal hydrolase 28

<400> 186
      gtatggacaa gagcgtttgt tcaagagacc aacgctcttg tccatac          47

<210> 187
<211> 47
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: DNA encoding
      an shRNA directed against the gene for the
      ubiquitin carboxyl-terminal hydrolase 28

<400> 187
      cgaacccttc tggAACAGTT tcaAGAGAAC tggTCCAGAA ggGTTCG          47

<210> 188
<211> 47
<212> DNA
<213> Artificial Sequence

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<220>  
 <223> Description of Artificial Sequence: DNA encoding  
 an shRNA directed against the gene for the  
 ubiquitin carboxyl-terminal hydrolase 28

<400> 188  
 gtggcatgaa gattatagtt tcaagagaac tataatcttc atgccac

47

<210> 189  
 <211> 47  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: DNA encoding  
 an shRNA directed against the ubiquitin  
 carboxyl-terminal hydrolase 14

<400> 189  
 ggtgaacaag gacagtatct tcaagagaga tactgtcctt gttcacc

47

<210> 190  
 <211> 47  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: DNA encoding  
 an shRNA directed against the gene for the  
 ubiquitin carboxyl-terminal hydrolase 14

<400> 190  
 gcaatagagg atgattctgt tcaagagaca gaatcatcct ctattgc

47

<210> 191  
 <211> 47  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: DNA encoding  
 an shRNA directed against the gene for the  
 ubiquitin carboxyl-terminal hydrolase 14

<400> 191  
 tctgtgaatg ccaaagttct tcaagagaga actttggcat tcacaga

47

<210> 192  
 <211> 47  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: DNA encoding  
 an shRNA directed against the gene for the  
 ubiquitin carboxyl-terminal hydrolase 14

<400> 192

cacaccaggg aaggcttagt tcaagagact agaccttccc tggtgtg

47

<210> 193  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the DUB1 gene

<400> 193  
gcaggaagat gccccatgaat tcaagagatt catgggcattc ttccctgc

47

<210> 194  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220> ..  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed agains the DUB1 gene

<400> 194  
gaatgtgcaa tatccctgagt tcaagagact caggatattg cacattc

47

<210> 195  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the DUB1 gene

<400> 195  
tggatgtgc caaggtcaact tcaagagagt gaccttggca tcatacca

47

<210> 196  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the DUB1 gene

<400> 196  
gctccgtgct aaacctctct tcaagagaga gaggttttagc acggagc

47

<210> 197  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the gene for the mouse

## USP27 homolog

<400> 197  
 gcctccacccat caacagaggt tcaagagacc tctggtgagg tggaggc 47

<210> 198  
 <211> 47  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: DNA encoding  
 an shRNA directed against the gene for the mouse  
 USP27 homolog

<400> 198  
 ctgcata gaccaaattct tcaagagaga ttgggtctat gatgcag 47

<210> 199  
 <211> 47  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: DNA encoding  
 an shRNA directed against the gene for the mouse  
 USP27 homolog

<400> 199  
 gatcaactaca tacatttcct tcaagagagg aaatgttatgt agtgatc 47

<210> 200  
 <211> 47  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: DNA encoding  
 an shRNA directed against the gene for the mouse  
 USP27 homolog

<400> 200  
 gtaaagagag cagaatgaat tcaagagatt cattctgctc tctttac 47

<210> 201  
 <211> 47  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: DNA encoding  
 an shRNA directed against the gene for the  
 ubiquitin carboxyl-terminal hydrolase 4

<400> 201  
 cgcgccccgcg agtggtatct tcaagagaga taccactgcg ccccgcg 47

<210> 202

<211> 47  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the gene for the  
ubiquitin carboxyl-terminal hydrolase 4

<400> 202  
cagaaggcag tgggaaagat tcaagagatc ttccccactg ccttctg

47

<210> 203  
<211> 47  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the gene for the  
ubiquitin carboxyl-terminal hydrolase 4

<400> 203  
gcctgggaga atcacagggtt tcaagagaac ctgtgattct cccaggc

47

<210> 204  
<211> 47  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the gene for the  
ubiquitin carboxyl-terminal hydrolase 4

<400> 204  
accagacaag gaaataccct tcaagagagg gtatttcctt gtctgg

47

<210> 205  
<211> 47  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the TRE-2 gene

<400> 205  
cacatccacc acatcgacct tcaagagagg tcgatgtggt ggatgtg

47

<210> 206  
<211> 47  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the TRE-2 gene

<400> 206 gtcacaaccc aagaccatgt tcaagagaca tggtcttggg ttgtgac	47
<210> 207 <211> 47 <212> DNA <213> Artificial Sequence	
<220> <223> Description of Artificial Sequence: DNA encoding an shRNA directed against the TRE-2 gene	
<400> 207 ctcaacagga caaatcccat tcaagagatg ggatttgtcc tgttgag	47
<210> 208 <211> 47 <212> DNA <213> Artificial Sequence	
<220> <223> Description of Artificial Sequence: DNA encoding an shRNA directed against the TRE-2 gene	
<400> 208 tagatcaatt attgtggatt tcaagagaat ccacaataat tgatcta	47
<210> 209 <211> 47 <212> DNA <213> Artificial Sequence	
<220> <223> Description of Artificial Sequence: DNA encoding an shRNA directed against the gene for the ubiquitin carboxyl-terminal hydrolase 15 (UNPH-2)	
<400> 209 ggaacacacctt attgatgaat tcaagagatt catcaataag gtgttcc	47
<210> 210 <211> 47 <212> DNA <213> Artificial Sequence	
<220> <223> Description of Artificial Sequence: DNA encoding an shRNA directed against the gene for the ubiquitin carboxyl-terminal hydrolase 15 (UNPH-2)	
<400> 210 ctttaacaga aattgtctct tcaagagaga gacaatttct gttaaag	47
<210> 211 <211> 47 <212> DNA <213> Artificial Sequence	

<220>  
 <223> Description of Artificial Sequence: DNA encoding  
     an shRNA directed against the gene for the  
     ubiquitin carboxyl-terminal hydrolase 15 (UNPH-2)

<400> 211  
 cctatgcagt acaaagtgg tcaagagacc actttgtact gcatagg

47

<210> 212  
 <211> 47  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: DNA encoding  
     an shRNA directed against the gene for the  
     ubiquitin carboxyl-terminal hydrolase 15 (UNPH-2)

<400> 212  
 gatctttct tgcttggat tcaagagatc caaagcaaga aaagatc

47

<210> 213  
 <211> 47  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: DNA encoding  
     an shRNA directed against the KIAA1372 gene

<400> 213  
 cagcatcctt caggccttat tcaagagata aggcctgaag gatgctg

47

<210> 214  
 <211> 47  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: DNA encoding  
     an shRNA directed against the KIAA1372 gene

<400> 214  
 gatagtgact cggatctgct tcaagagagc agatccgagt cactatc

47

<210> 215  
 <211> 47  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: DNA encoding  
     an shRNA directed against the KIAA1372 gene

<400> 215  
 gacatcacag cccgggagtt tcaagagaac tcccgggctg tgatgtc

47

<210> 216

<211> 47  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the KIAA1372 gene

<400> 216  
ggacacagcc tatgtgctgt tcaagagaca gcacataggc tgtgtcc

47

<210> 217  
<211> 47  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the gene for the BRCA1  
associated protein-1

<400> 217  
gtggaggaga tctacgacct tcaagagagg tcgttagatct cctccac

47

<210> 218  
<211> 47  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the gene for the BRCA1  
associated protein-1

<400> 218  
ctcttgca actcatgcct tcaagagagg catgagttgc acaagag

47

<210> 219  
<211> 47  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the gene for the BRCA1  
associated protein-1

<400> 219  
acagggcccc tgcaagcctct tcaagagaga ggctgcaggg gccctgt

47

<210> 220  
<211> 47  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> Description of Artificial Sequence: DNA encoding  
an shRNA directed against the gene for the BRCA1  
associated protein-1

<400> 220  
gaagacctgg cggcaggtgt tcaagagaca cctgccgcca ggtcttc